

New York State Department of Transportation

Yellow Flag NB2222W014

By: Sahadeo Bhagwandin

Flag Date: June 03, 2022

Superseding Information:

No Flags Superseded

Structure Information

BIN: 1065318

Feature Carried: 278I278IX2M23027

Feature Crossed: 6TH AVENUE

Orientation: 8 - NORTHWEST

Region: 11 - NEW YORK CITY

County: KINGS

Political Unit: City of NEW YORK

Approximate Year Built: 1962

Posted Load Matches Inventory : Yes

Bridge Load Posting (Tons) : Not Posted for Load

Primary Owner: New York State Department of Transportation

Primary Maintenance Responsibility: 12 - State - Subcontracted to another Party

Typical or Main Span Type: 3 - Steel, 02 - Stringer/Multi-Beam or Girder

This Bridge is not a Ramp

Number of Spans: 322

Verbal Notification Information

Person Notified: Heinz Joachim, P.E.

Date: June 03, 2022 9:00:00 AM

Of: NYSDOT Region 11

Signature Information

Signature: Sahadeo Bhagwandin, P.E. 088239-1

Date: June 29, 2022

Reviewed By: Robert Kemp

Date: June 29, 2022

Attachments: 8

Flagged Elements

Parent Element	Element	Total Quantity	Unit
Span Number : 153			
	113 - Steel Stringer	104	ft
	PR831 - Steel Beam End	34	each

Flagged Condition Description

This Yellow Flag No. NB2222W014 is a new condition.

Location: Span 153 – S1 at Pier 153 over 3rd Avenue Westbound

Description: Stringer S1 end at Pier 153 exhibits severe corrosion with up to 60% section loss (20" high) in the web adjacent to the connection angle (D-meter reading for remaining thickness is 0.17" and 0.13"). There are two holes (3"H x 2"W and 4"H x 2"W) in the stringer web adjacent to the connection angle. The remaining web thickness between the two holes was observed as 0.13" from D-meter reading.

The stringer web exhibits varying section loss along the left bottom flange angle for a total length of 27". The lower portion (2"H) of the web adjacent to connection angle, exhibits section loss varying from 30% to 60% (D-meter reading – 0.27" remaining thickness) for 5"L and then up to 40% section loss for the remaining length of 22". Four (4) rivets in the connection angle and six (6) rivets in the web angle exhibit 10% to 15% section loss in rivet heads.

The outstanding leg of the bottom flange angle on the left side has a 2"L x 3"W corrosion hole adjacent to the bearing seat. The remaining part of the outstanding bottom flange angle leg exhibits up to 40% section loss (32"L x full width). The stringer bearing seat at the begin face of Pier 153 exhibits corrosion with up to 10% section loss.

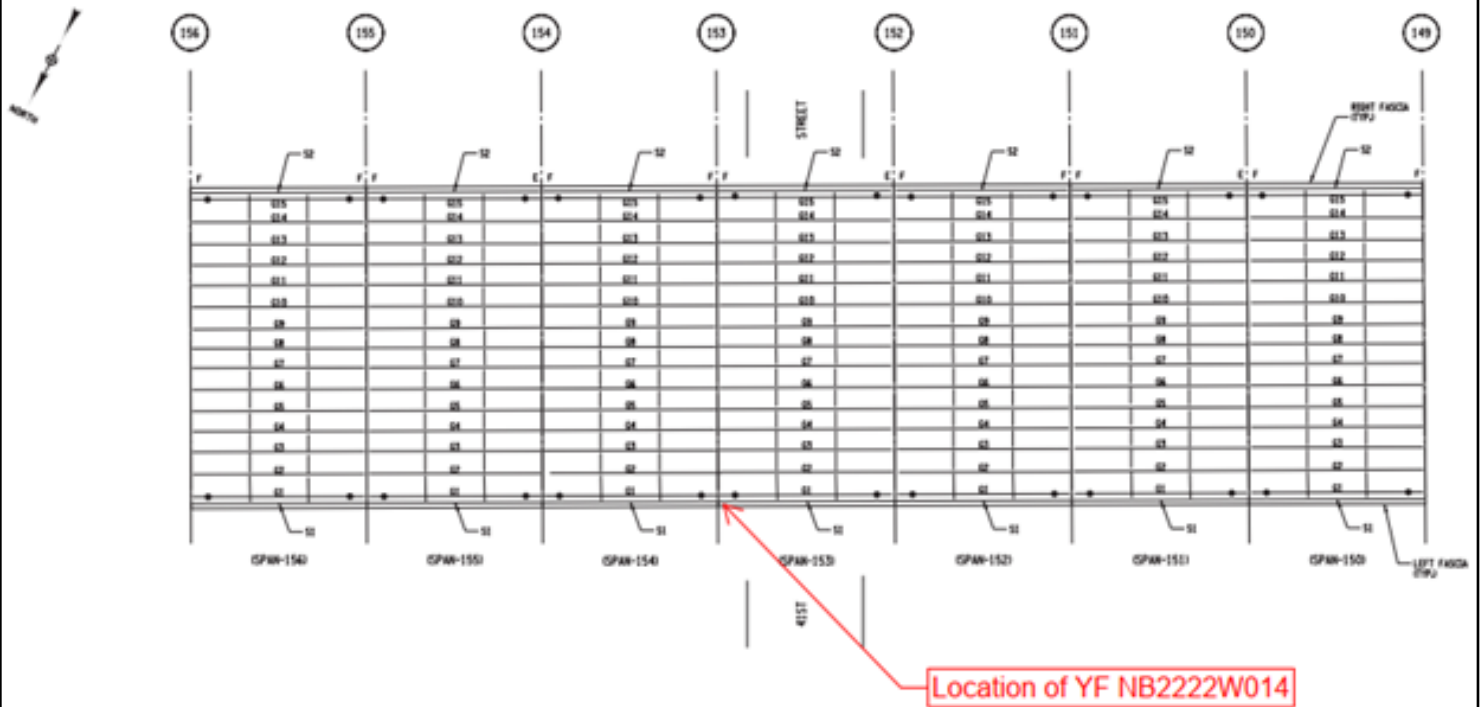
Notes:

- 1.Stringer S1 receives no direct live loading, but supports the barrier/railing above the deck.
- 2.Total web thickness of Stringer S1 without section loss was measured as 0.4" (D-meter reading).
- 3.The web height between the top flange and bottom web angle is 22" H.
- 4.No deformation was observed in any part of the Stringer S1 connection to the Pier 157 Pier Cap.
- 5.The adjacent Girder G1 in Span 153 is in fair condition.
- 6.Stringer S1 in Span 154 at Pier 153 end face exhibits heavy corrosion with up to 60% section loss over the full height of the web. A total 13 fasteners in the various stringer connection assembly exhibit 10% - 15% section loss in the rivet heads. Bottom flange angle legs on both sides exhibit 20% - 40% section loss over a section of 32" long x full width. The stringer bearing seat at the pier exhibits corrosion with up to 10% section loss. Yellow Flag No. NB2222W015 was issued.
- 7.Double left lane closure at 3rd Avenue Out-Bound (Verrazano Bridge) and a 35' bucket truck are required to access this location.

Flag Photographs

Photo Number: 1

Photo Filename: 1065318 Span 153 Framing Plan.png



LEGEND:

E - Expansion Bearing Element PR311

F - Fixed Connection

G - Girder Element 107

S - Stringer Element 113

- End of partial length cover plate. Category E requires 100% Hands on Inspection.

Attachment Description: SPAN 153 FRAMING PLAN

Photo Number: 2

Photo Filename: BIN 1065318 - FLAG DETAIL SKETCH 1.jpg

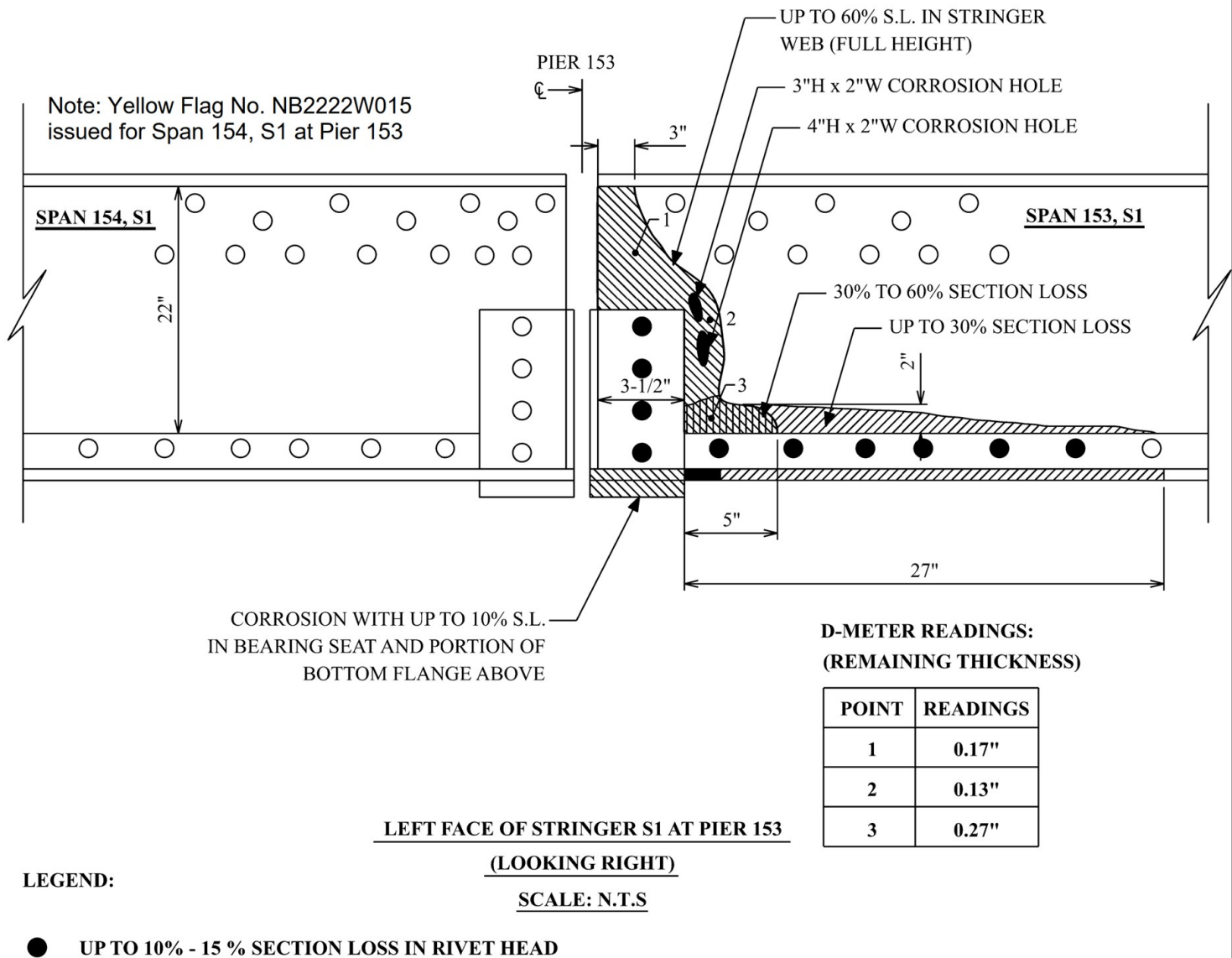
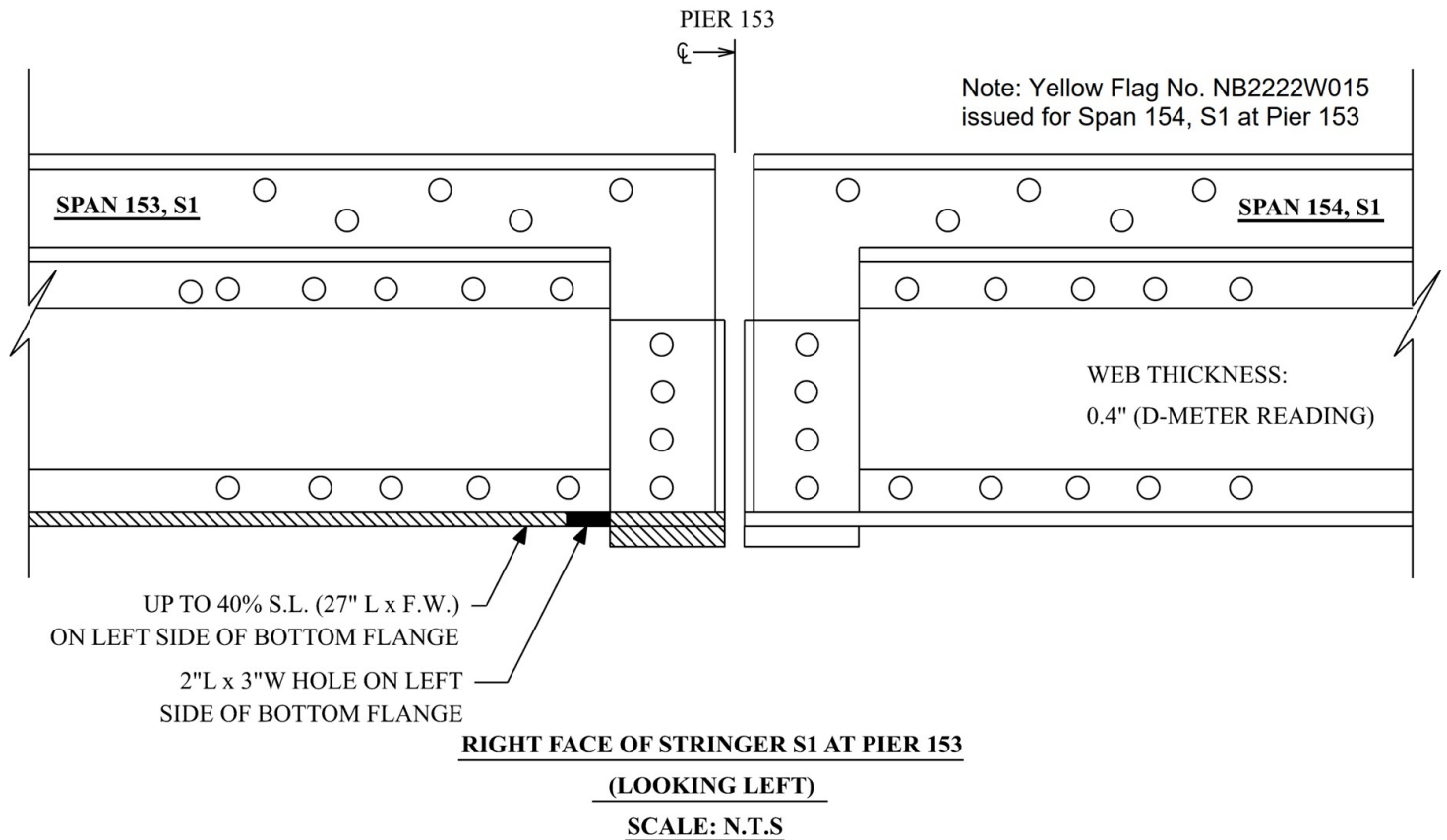
BIN 1065318**DATE: 06/03/2022****Attachment Description: FLAG DETAIL SKETCH 1**

Photo Number: 3

Photo Filename: BIN 1065318 - FLAG DETAIL SKETCH 2.jpg

BIN 1065318**DATE: 06/03/2022****LEGEND:**

- UP TO 10% - 15 % SECTION LOSS IN RIVET HEAD

Attachment Description: FLAG DETAIL SKETCH 2

Photo Number: 4

Photo Filename: P6010241.JPG



Attachment Description: Photo 1: General view of flag location in Span 153 at Pier 153. Looking end.

Photo Number: 5

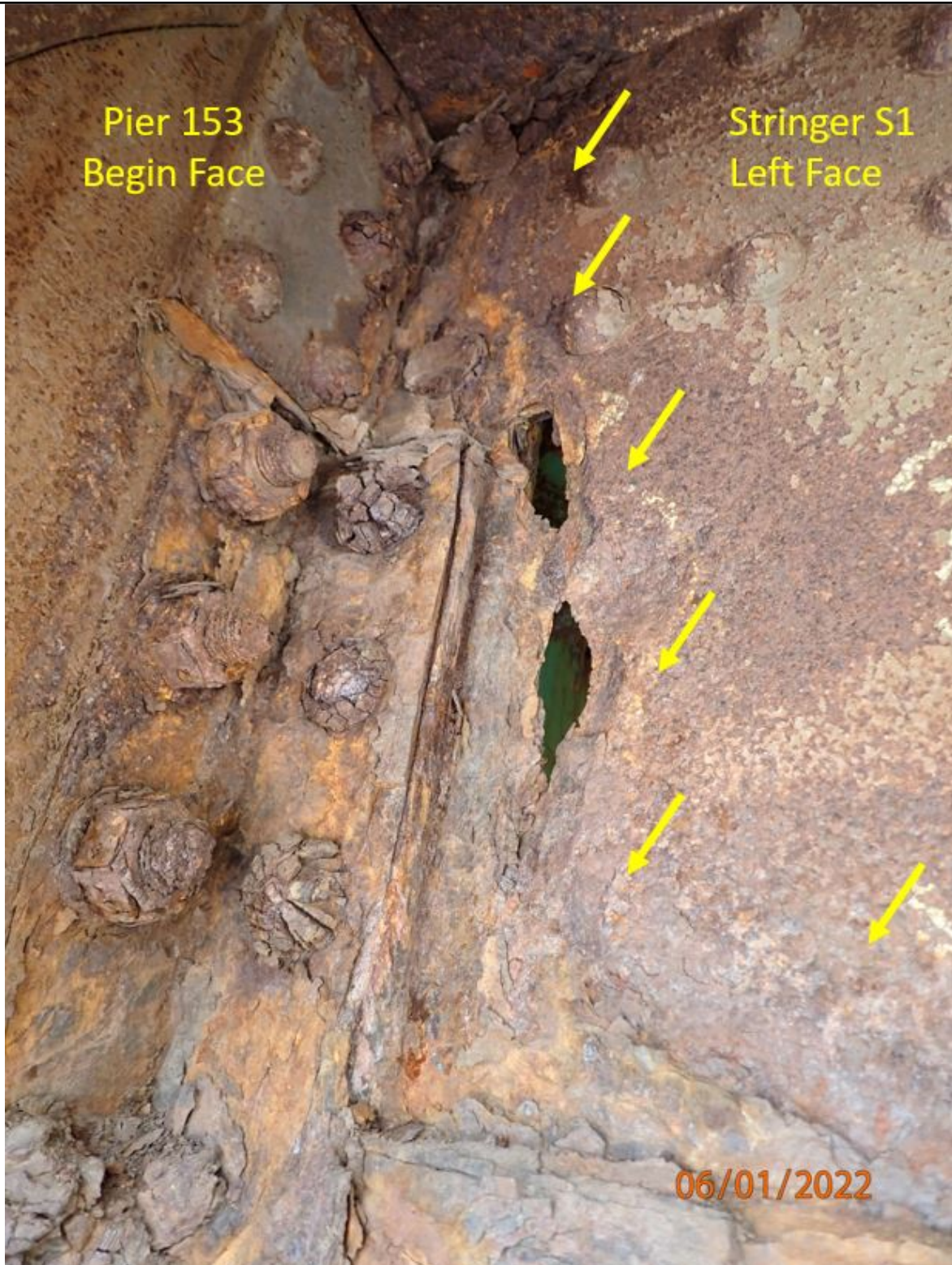
Photo Filename: P6010210.JPG



Attachment Description: Photo 2: Span 153, Stringer S1 at Pier 153 - General view of left side of stringer web. Looking end - right.

Photo Number: 6

Photo Filename: P6010215.JPG



Attachment Description: Photo 3: Span 153, Stringer S1 at Pier 153 - Corrosion holes and section loss in the stringer web left face. Looking right.

Photo Number: 7

Photo Filename: P6010205.JPG



Attachment Description: Photo 4: Span 153, Stringer S1 at Pier 153 - Close up view of the corrosion holes in the stringer web adjacent to the connection angle, measuring 3\"H x 2\"W and 4\"H x 2\"W. Looking right.

Photo Number: 8

Photo Filename: P6010212.JPG



Attachment Description: Photo 5: Span 153, Stringer S1 at Pier 153 - Section loss in stringer web along the left bottom flange angle leg and up to 40% section loss in outstanding leg of left angle in bottom flange. Looking end-right.